

# Ejercicio Netviewer

Carlos Vicente  
Servicios de Redes  
Universidad de Oregon

# Contenido

- Instalación del paquete
- Configuración

# Obtener el paquete y sus dependencias

- Descargar Netviewer
  - Desde el servidor web local
  - Desde el sitio web
    - <http://www.nero.net/projects/netviewer>
- Dependencias
  - RRDTool
  - Net::SNMP (éste es diferente a Net-SNMP)
  - CGI

# Instalar RRDTool

```
#tar xzvf rrdtool-1.0.48.tar.gz
#cd rrdtool-1.0.48
#sh configure
#make
#make install
#make site-perl-install
#cd /usr/local/
#ln -s rrdtool-1.0.48/ rrdtool
```

# Instalar los módulos Perl (si hay conexión al exterior)

- **Usar CPAN** (Comprehensible Perl Archive Network)
  - Se encarga de descargar e instalar recursivamente los paquetes y sus dependencias
  - Muy rápido y fácil

```
#perl -MCPAN -e shell;
```

Responder que no a la configuración manual (sólo primera vez)

```
>install Net::SNMP
```

Preguntará si quiere instalar dependencias. Aceptar.

```
>install CGI
```

```
>exit
```

Voilà!

# Instalar los módulos Perl (si no hay conexión al exterior)

- Obtener el paquete Net::SNMP y luego

```
#tar xzvf Net-SNMP-4.1.2.tar.gz
#cd Net-SNMP-4.1.2/
#perl Makefile.PL
#make all
#make install
```

- Y lo mismo para el módulo CGI

```
#tar xzvf CGI.pm-3.05.tar.gz
#cd CGI.pm-3.05/
#perl Makefile.PL
#make
#make install
```

# Instalar Apache

- Revisar si Apache no está ya instalado

```
rpm -qa |grep httpd
```

- Si no está, descargar el RPM e instalarlo

```
rpm -Uvh httpd-2.0.40-21.i386.rpm
```

- Configurar para Netviewer

```
#vi /etc/httpd/conf/httpd.conf
```

Agregar al final las líneas:

```
ScriptAlias /netviewer/cgi "/usr/local/netviewer/cgi"
```

```
Alias /netviewer/img/ "/usr/local/netviewer/img/"
```

- Iniciar

```
#service httpd start
```

# Instalar Netviewer

```
#tar xzvf netviewer-0.28.tar.gz
#cd netviewer-0.28/
#useradd netview
#make install PREFIX=/usr/local/netviewer
#cd /usr/local/netviewer
#cp contrib/rc.netviewer /etc/rc.d/init.d/netviewer
```



# Configuración

- Editar configuración global

```
#cd /usr/local/netviewer  
#vi etc/netviewer.conf  
    DEFAULTCOLLECT yes
```

- Editar netviewer.cgi

```
#vi cgi/netviewer.cgi  
    use lib "/usr/local/netviewer/lib";  
    my $HOME = "/usr/local/netviewer" ;
```

- Iniciar el *daemon*

```
#service netviewer start
```

# Configuración

- Dar permisos a Apache para crear las imágenes

```
#chown apache:apache img/
```

- Configurar el CGI

```
#vi etc/cgi.conf
```

```
webroot      /usr/local/netviewer
```

```
relimgdir   netviewer/img
```

```
absimgdir   /usr/local/netviewer/img
```

# Configuración

- *Descubrir* dispositivos

```
#bin/initialize device <ip>  
#bin/handler list device
```

- Instalar un *cron job* para interrogar los dispositivos cada 5 minutos

```
#crontab -e  
(usar comandos vi)  
0,5,10,15,20,25,30,35,40,45,50,55 * * * * /usr/local/netviewer/bin/updater 5 all
```

# Verificar operación

- Abrir el navegador en
  - `http://<su-ip>/netviewer/cgi/netviewer.cgi`

# Trucos con NetViewer

- Organizar los gráficos según distintos criterios
  - Facilitar la labor del NOC al momento de resolver fallas
  - Requiere programación en Perl y CGI

UD Network Statistics Page - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://netstat.uoregon.edu/

Firefox Help Firefox Support Plug-in FAQ



## UO Network Statistics Page

### Network Utilization and Performance at the University of Oregon

[Netviewer's](#) main page.

---

#### UOnet

##### Router Interfaces

Sorted by [address](#), [by router](#), by [traffic](#), by [errors](#).  
Per Router by [subnet](#) by [traffic](#)  
Per Router [CPU](#) & [Memory](#) Statistics  
Subnet aggregates sorted by [traffic](#), by [address](#).

##### Backbone Switches

Sorted by ports' [traffic](#)  
[Net2-backbone](#), [Net3-backbone](#), [Net2 vs. Net3 ports](#).

##### Border Routers

Campus Border Routers and Primary [Transit Points](#)  
Border Routers' [BGP Peers](#)

##### Modem Pool

Modem [usage](#) and Communication Servers [traffic](#).

##### Misc Aggregates

Aggregates for [UO-Portland T1's](#).

UOnet Router Interfaces, by router traffic then by interface traffic - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://netstat.uoregon.edu/netviewer/uo/ifs\_by\_dev\_by\_bps.html

Firefox Help Firefox Support Plug-in FAQ

## UOnet Router Interfaces, by router traffic then by interface traffic

[Home] [Netviewer main]

This page was last updated on: Thu Jul 22 09:35:38 2004

Device bps	Interface	IP Addr	Description
<a href="#">[redacted]</a>	<a href="#">ack (1,359,553,672 bps)</a>		
<a href="#">272,991,888</a>	GigabitEthernet5/1	<a href="#">[redacted]</a>	Gig5/1 - <a href="#">[redacted]</a> - Net2 Backbone - <a href="#">[redacted]</a>
<a href="#">220,846,416</a>	GigabitEthernet4/5	<a href="#">[redacted]</a>	Gig4/5 - VLAN Port - Net220 News Servers Network - <a href="#">[redacted]</a>
<a href="#">220,509,680</a>	unrouted VLAN 220_149		-
<a href="#">216,874,064</a>	Vlan220_126	<a href="#">[redacted]</a>	Vlan220 - <a href="#">[redacted]</a> - Net220 News Servers Network
<a href="#">216,874,064</a>	Vlan220_126	<a href="#">[redacted]</a>	Vlan220 - <a href="#">[redacted]</a> - Net220 News Servers Network
<a href="#">13,022,600</a>	GigabitEthernet4/2	<a href="#">[redacted]</a>	Gig4/2 - VLAN Port - CC Servers Network - <a href="#">[redacted]</a>
<a href="#">13,006,120</a>	unrouted VLAN 142		-
<a href="#">12,795,144</a>	Vlan142	<a href="#">[redacted]</a>	Vlan142 - <a href="#">[redacted]</a> - CC Servers Network - <a href="#">[redacted]</a>
<a href="#">12,795,144</a>	Vlan142	<a href="#">[redacted]</a>	Vlan142 - <a href="#">[redacted]</a> - CC Servers Network - <a href="#">[redacted]</a>
<a href="#">7,765,568</a>	unrouted VLAN 306		-
<a href="#">7,740,840</a>	GigabitEthernet9/2	<a href="#">[redacted]</a>	Gig9/2 - VLAN Port - Multicast Servers - <a href="#">[redacted]</a>
<a href="#">6,156,608</a>	Vlan162	<a href="#">[redacted]</a>	Vlan162 - <a href="#">[redacted]</a> - Services Network - <a href="#">[redacted]</a>
<a href="#">6,156,608</a>	Vlan162	<a href="#">[redacted]</a>	Vlan162 - <a href="#">[redacted]</a> - Services Network - <a href="#">[redacted]</a>
<a href="#">6,112,696</a>	GigabitEthernet4/7	<a href="#">[redacted]</a>	Gig4/7 - VLAN Port - Services Network - <a href="#">[redacted]</a>
<a href="#">5,923,248</a>	unrouted VLAN 162		-
<a href="#">4,091,224</a>	unrouted VLAN 36		-
<a href="#">4,054,288</a>	FastEthernet2/9	<a href="#">[redacted]</a>	Fast2/9 - VLAN Port - Multibuilding (Deady, Fenton, Friendly, Ch
<a href="#">3,997,144</a>	Vlan36	<a href="#">[redacted]</a>	Vlan36 - <a href="#">[redacted]</a> - Multibuilding (Dead
<a href="#">3,997,144</a>	Vlan36	<a href="#">[redacted]</a>	Vlan36 - <a href="#">[redacted]</a> - Multibuilding (Dead
<a href="#">3,997,144</a>	Vlan36	<a href="#">[redacted]</a>	Vlan36 - <a href="#">[redacted]</a> - Multibuilding (Dead
<a href="#">3,997,144</a>	Vlan36	<a href="#">[redacted]</a>	Vlan36 - <a href="#">[redacted]</a> - Multibuilding (Dead
<a href="#">3,152,064</a>	Vlan50	<a href="#">[redacted]</a>	Vlan50 - <a href="#">[redacted]</a> - Oregon Hall - uonet
<a href="#">3,152,064</a>	Vlan50	<a href="#">[redacted]</a>	Vlan50 - <a href="#">[redacted]</a> - Oregon Hall - uonet

UOnet Switches Ports sorted by total traffic - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

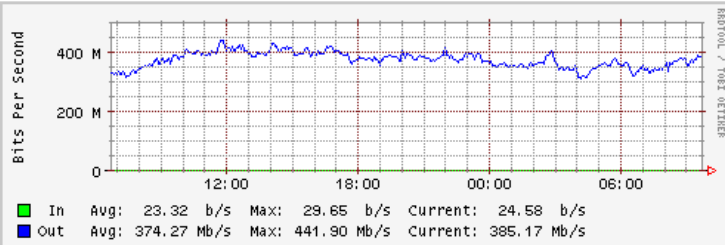
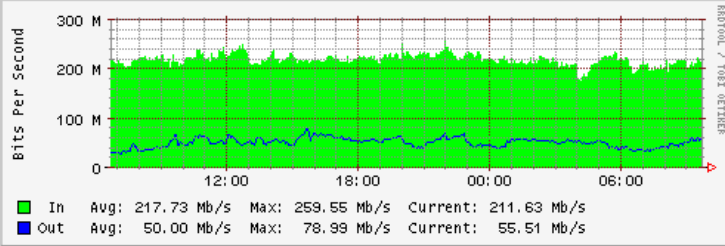
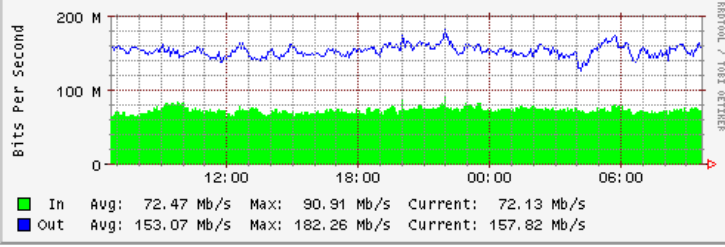
http://netstat.uoregon.edu/netviewer/uo/ports\_by\_bps.html

Firefox Help Firefox Support Plug-in FAQ

## UOnet Switches Ports sorted by total traffic

[\[Home\]](#) [\[Netviewer main\]](#)

This page was last updated on: **Thu Jul 22 09:40:41 2004**

Total bps	Device	Interface Description
 <p> <b>In</b> Avg: 23.32 b/s Max: 29.65 b/s Current: 24.58 b/s  <b>Out</b> Avg: 374.27 Mb/s Max: 441.90 Mb/s Current: 385.17 Mb/s         </p>	<del>XXXXXXXXXX</del> A3	<del>XXXXXXXXXX</del>
 <p> <b>In</b> Avg: 217.73 Mb/s Max: 259.55 Mb/s Current: 211.63 Mb/s  <b>Out</b> Avg: 50.00 Mb/s Max: 78.99 Mb/s Current: 55.51 Mb/s         </p>	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>
 <p> <b>In</b> Avg: 72.47 Mb/s Max: 90.91 Mb/s Current: 72.13 Mb/s  <b>Out</b> Avg: 153.07 Mb/s Max: 182.26 Mb/s Current: 157.82 Mb/s         </p>	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>
